Hydrologic Model Manager

Short Name	SCS-CN-based hydrologic simulation package
Long Name	SCS-CN-based hydrologic simulation package
Description	
Model Type	Deterministic Model
Model Objectives	To determine infiltration, runoff volumes, infiltration rate, and runoff hydrograph.
Agency _Office	National Institute of Hydrology, Roorkee 247 667, Uttaranchal, India Louisiana State University, Baton Rouge, LA 70803-6405, U.S.A.
Tech Contact	Dr. Surendra Kumar Mishra, Scientist 'E' National Institute of Hydrology, Roorkee-247 667, Uttaranchal, India
Model Structure	Model is primarily based on the basic proportionality concept of the Soil Conservation Service Curve Number method published in 1956.
Interception	
Groundwater	
Snowmelt	
Precipitation	
Evapo-transpiration	
Infiltration	
Model Paramters	Potential maximum retention, initial abstraction coefficient, and storage routing coefficient
Spatial Scale	Small to mid-size catchments
Spatial Scale Temporal Scale	Small to mid-size catchments Event-based
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Temporal Scale	Event-based Rainfall hyetograph, antecedent precipitation amount, infiltration data, geomorphological characteristics of the watershed, soil-vegetation-land use
Temporal Scale Input Requirements	Event-based Rainfall hyetograph, antecedent precipitation amount, infiltration data, geomorphological characteristics of the watershed, soil-vegetation-land use complex,
Temporal Scale Input Requirements Computer Requirements	Event-based Rainfall hyetograph, antecedent precipitation amount, infiltration data, geomorphological characteristics of the watershed, soil-vegetation-land use complex, A Personal Computer
Temporal Scale Input Requirements Computer Requirements Model Output Parameter Estimatn Model	Event-based Rainfall hyetograph, antecedent precipitation amount, infiltration data, geomorphological characteristics of the watershed, soil-vegetation-land use complex, A Personal Computer Infiltration and runoff volumes, Infiltration rates and runoff hydrographs.
Temporal Scale Input Requirements Computer Requirements Model Output Parameter Estimatn Model Calibrtn	Event-based Rainfall hyetograph, antecedent precipitation amount, infiltration data, geomorphological characteristics of the watershed, soil-vegetation-land use complex, A Personal Computer Infiltration and runoff volumes, Infiltration rates and runoff hydrographs. Optimization by Marquardt least square approach
Temporal Scale Input Requirements Computer Requirements Model Output Parameter Estimatn Model Calibrtn Model Testing Verification	Event-based Rainfall hyetograph, antecedent precipitation amount, infiltration data, geomorphological characteristics of the watershed, soil-vegetation-land use complex, A Personal Computer Infiltration and runoff volumes, Infiltration rates and runoff hydrographs. Optimization by Marquardt least square approach Verification using empirical relations derived from the calibrated parameters. Model is sensitive to variation in parameter-values on small agricultural
Temporal Scale Input Requirements Computer Requirements Model Output Parameter Estimatn Model Calibrtn Model Testing Verification Model Sensitivity	Event-based Rainfall hyetograph, antecedent precipitation amount, infiltration data, geomorphological characteristics of the watershed, soil-vegetation-land use complex, A Personal Computer Infiltration and runoff volumes, Infiltration rates and runoff hydrographs. Optimization by Marquardt least square approach Verification using empirical relations derived from the calibrated parameters. Model is sensitive to variation in parameter-values on small agricultural
Temporal Scale Input Requirements Computer Requirements Model Output Parameter Estimatn Model Calibrtn Model Testing Verification Model Sensitivity Model Reliability	Event-based Rainfall hyetograph, antecedent precipitation amount, infiltration data, geomorphological characteristics of the watershed, soil-vegetation-land use complex, A Personal Computer Infiltration and runoff volumes, Infiltration rates and runoff hydrographs. Optimization by Marquardt least square approach Verification using empirical relations derived from the calibrated parameters. Model is sensitive to variation in parameter-values on small agricultural watersheds and insensitive to an urban watershed.
Temporal Scale Input Requirements Computer Requirements Model Output Parameter Estimatn Model Calibrtn Model Testing Verification Model Sensitivity Model Reliability Model Application	Event-based Rainfall hyetograph, antecedent precipitation amount, infiltration data, geomorphological characteristics of the watershed, soil-vegetation-land use complex, A Personal Computer Infiltration and runoff volumes, Infiltration rates and runoff hydrographs. Optimization by Marquardt least square approach Verification using empirical relations derived from the calibrated parameters. Model is sensitive to variation in parameter-values on small agricultural watersheds and insensitive to an urban watershed. Applied to 8 small agricultural watersheds, 2 mid-size watersheds, 1 micro urban watershed. Model documentation is given in the form of the text, but no documentation for
Temporal Scale Input Requirements Computer Requirements Model Output Parameter Estimatn Model Calibrtn Model Testing Verification Model Sensitivity Model Reliability Model Application Documentation	Event-based Rainfall hyetograph, antecedent precipitation amount, infiltration data, geomorphological characteristics of the watershed, soil-vegetation-land use complex, A Personal Computer Infiltration and runoff volumes, Infiltration rates and runoff hydrographs. Optimization by Marquardt least square approach Verification using empirical relations derived from the calibrated parameters. Model is sensitive to variation in parameter-values on small agricultural watersheds and insensitive to an urban watershed. Applied to 8 small agricultural watersheds, 2 mid-size watersheds, 1 micro urban watershed. Model documentation is given in the form of the text, but no documentation for the computer programs.

Technical Contact	
Contact Organization	